

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-6. (Canceled)
7. (Previously Presented) An evaporator tube for a sea water desalination system, which is formed of a steel that is sea water resistant and at the same time acid resistant, and which has a wall thickness between 0.1 mm and 0.5 mm.
8. (Canceled)
9. (Previously Presented) The evaporator tube in accordance with Claim 7, having a wall thickness between 0.2 mm and 0.3 mm.
10. (Currently Amended) The evaporator tube in accordance with Claim 7, being formed of a sheet metal and produced by welding by welding sheet steel in the form of a tube.
11. (Currently Amended) The evaporator tube in accordance with Claim 7, wherein a tube end of the evaporator tube is connected with a tube bottom consisting of a same steel type, in particular by welding.
12. (Previously Presented) The evaporator tube in accordance with Claim 7, wherein the cross-section of the evaporator tube differs from a circular shape.
13. (Currently Amended) The evaporator tube in accordance with ~~Claim 8,~~ Claim 7, wherein the cross-section of the evaporator tube differs from a circular shape.
14. (Previously Presented) The evaporator tube in accordance with Claim 9, wherein the cross-section of the evaporator tube differs from a circular shape.
15. (Previously Presented) The evaporator tube in accordance with Claim 10, wherein the cross-section of the evaporator tube differs from a circular shape.
16. (Previously Presented) The evaporator tube in accordance with Claim 11, wherein the cross-section of the evaporator tube differs from a circular shape.

17. (New) A sea water desalination system comprising the evaporator tube according to claim 7.
18. (New) A method for desalination of sea water comprising:  
evaporating sea water on a first surface of the evaporator tube according to claim 7 to produce water vapor; and  
condensing water vapor on a second surface of said evaporator tube.